

| EXTRACTABLE ORGANIC HALIDES (EOX) IN SOLIDS<br>EPA 9023 REVISION 0 1996  |                  |   |   |     |          |
|--|------------------|---|---|-----|----------|
| Facility Name: _____ VELAP ID _____  |                  |   |   |     |          |
| Assessor Name: _____ Analyst Name: _____ Inspection Date _____   |                  |   |   |     |          |
| Relevant Aspect of Standards   | Method Reference | Y | N | N/A | Comments |
| <i>Records Examined:</i> SOP Number/ Revision/ Date _____ Analyst: _____<br>Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____ |                  |   |   |     |          |
| Were method blanks demonstrated to be free from interferences?   | 3.1              |   |   |     |          |
| Was all glassware cleaned with chromate solution, detergent, tap water, and distilled water?   | 3.1.1            |   |   |     |          |
| Was all glassware heated in a muffle furnace at 400°C for 15-30 minutes?   | 3.1.1            |   |   |     |          |
| Was glassware cooled, sealed, and stored in a clean environment between cleaning and use?  | 3.1.1            |   |   |     |          |
| Were the operations of this method carried out in an area where methylene chloride was not used?   | 3.3              |   |   |     |          |
| Were all reagents of sufficient purity to prevent interferences and preserve accuracy?   | 5.1              |   |   |     |          |
| Was a 70% Acetic Acid Solution used?   | 5.7              |   |   |     |          |
| Were all samples iced or refrigerated at 4°C from collection until analysis?   | 6.2<br>6.3       |   |   |     |          |
| Did sample bottles have PTFE septa and protect samples from light? (Foil may be substituted for Septa)   | 6.3              |   |   |     |          |
| Were samples washed and muffled at 400°C prior to use?   | 6.3              |   |   |     |          |
| Were sample bottles filled so as to minimize headspace?  | 6.3              |   |   |     |          |
| Were samples stored for not longer than 28 days prior to analysis?   | 6.3              |   |   |     |          |
| When analysis was conducted on the TSS of samples, were the solids isolated by centrifugation and analyzed immediately?                                | 6.4              |   |   |     |          |
| Notes/Comments:  |                  |   |   |     |          |

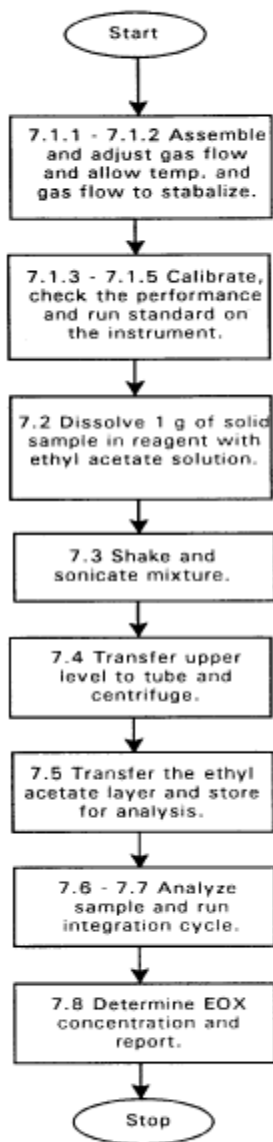
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| When analysis was conducted on the TSS of samples, were the dry weights of separate portions of wet solids determined by drying them overnight at 110°C? | 6.4              |   |   |     |          |
| Were instruments calibrated according to manufacturers' instructions?  | 7.1              |   |   |     |          |
| Were 1 gram aliquots of solid samples transferred to a 10 mL vial, and have 5 mL of ethyl acetate and 1 mL of reagent water added to them?               | 7.2              |   |   |     |          |
| Were the 10 mL vials then shaken vigorously for thirty seconds?  | 7.3              |   |   |     |          |
| Were 10 mL vials either sonified for 15 minutes in a sonic bath or for 5 minutes with a sonic probe?   | 7.3              |   |   |     |          |
| Were the suspension next allowed to settle for 10 minutes and the ethyl acetate layers transferred to conical centrifuge tubes?                          | 7.4              |   |   |     |          |
| Were the centrifuge tubes centrifuged at 1000 times gravity for five minutes?  | 7.4              |   |   |     |          |
| Were ethyl acetate layers then transferred to clean 10 mL sample containers and stored at 4°C until analysis?  | 7.5              |   |   |     |          |
| Were data reported in micrograms/gram?   | 7.9              |   |   |     |          |
| Were data labeled as suspect when associated spike recoveries fell outside of acceptance limits?   | 7.10             |   |   |     |          |
| When sample dilutions were necessary, were ethyl acetate aliquots diluted by carrying them through the entire preparation process again?                 | 7.11             |   |   |     |          |
| Did the laboratory operate a formal quality control program?   | 8.1              |   |   |     |          |
| Notes/Comments:  |                  |   |   |     |          |

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| <b>Accuracy and Precision Demonstration</b>  |                         |          |          |            |                 |
| Did each analyst demonstrate his/her ability to generate acceptable data with this method prior to generating reportable data?                                     | 8.2                     |          |          |            |                 |
| Were six 1 gram soil samples spiked with a check standard and analyzed with this method?   | 8.2.2                   |          |          |            |                 |
| Were soil background corrections made on the six spiked soil replicates?   | 8.2.3                   |          |          |            |                 |
| Were the average percent recovery and standard deviation of the percent recovery of the six replicates calculated?   | 8.2.3                   |          |          |            |                 |
| Was the check standard used to spike the six soil samples analyzed repeatedly to compile acceptance limits?  | 8.2.4                   |          |          |            |                 |
| Did the average percent recovery and each individual recovery of the six replicates fall within 3 standard deviations of the above acceptance limits?              | 8.2.4                   |          |          |            |                 |
| Were samples that were run in association with the accuracy and precision demonstration flagged if the demonstration of accuracy and precision was not acceptable? | 8.2.4                   |          |          |            |                 |
| <b>Quality Control</b>   |                         |          |          |            |                 |
| Were MDLs analyses done for this method?   | 9.1                     |          |          |            |                 |
| Was the analytical system demonstrated to be free from interferences each day by the analysis of uncontaminated soil?  | 8.4                     |          |          |            |                 |
| Were LFM/LFMD samples carried through all preparation and analysis and done for 5% of samples?   | 8.3                     |          |          |            |                 |
| Notes/Comments:  |                         |          |          |            |                 |

METHOD 9023

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CD-ROM

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Revision 0  
December 1996